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CLAIMS:-

1. A solid support (1, 22) for a biochemical assay, which support is substantially linear or planar in shape and has an anodised metal surface layer (13), the largest dimension of the support being less than 100µm, whereby an aqueous suspension is formable from a plurality of the supports.

2. A support according to claim 1, wherein the surface layer has a cellular structure anodisation layer (15, 23), the growth direction of the cells of the anodisation layer being perpendicular to the plane of the surface layer.

3. A support according to claim 1 or 2, wherein probe molecules (16) for the biochemical assay are bound to the surface layer.

4. A support according to any one of claims 1 to 3, wherein the surface layer is of aluminium.

5. A support according to any one of claims 1 to 4, wherein the surface layer is porous.

6. A support according to claim 5, wherein the pore size of the surface layer is approximately matched to the

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size of the biochemically active molecules to be bound.

5 ~~7. A support according to any one of claims 1 to 6, incorporating a spatially varying pattern (18) for identification purposes.~~

8. A support according to claim 7, wherein said pattern is a barcode.

10 9. A support according to claim 8, wherein the barcode is a linear barcode.

15 10. A support according to any one of claims 7 to 9, in which the pattern comprises a series of holes (2) in the support.

20 11. A method of fabricating the supports of one of claims 1 to 10, comprising sputter coating a flat surface with a metal layer (13), anodising the metal layer, and lithographically patterning and etching the metal layer to reveal the supports.

25 12. A method according to claim 13, wherein said surface consists of a layer of soluble material (12) on a rigid substrate (11), and the method further comprises releasing the supports from said surface by solvation of the soluble material.

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13. A method according to claim 12, wherein the soluble material is a resist.

Sub A4
14. A method according to any one of claims 11 to 13, wherein the anodising is carried out at a voltage of up to 150 V.

10 15. A method according to claim 14, wherein the anodising is carried out at a voltage in the range from 4 V to 30V.

Sub A5
15 16. A method according to any one of claims 11 to 15, further comprising binding probe molecules (16) to the anodised metal layer.

17. An optical reader for reading the patterns and identifying the supports according to claim 7.

20 18. A reader according to claim 17, operating by means of transmission optics.

19. A reader according to claim 18, wherein said supports are transported through an optical read volume
25 by a fluidic system.

Sub A6
20. A reader according to claim 18, in which there are

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~~two~~ substantially orthogonal light transmission paths
(33, 34).

21. A reader according to claim 20, incorporating one
5 or more fluorescence detectors.

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